

# **Press Release**

November 22, 2016

Technical expertise and broad material know-how

# Henkel to develop new solutions for 3D Printing

Düsseldorf – 3D Printing is a fast growing technology leveraged by designers across nearly all industries to help enable new designs and accelerate time to market. 3D printed parts are used for prototyping to validate fit and function. In some cases, the 3D printed assembly itself is part of the final assembled good, which is typically referred to as additive manufacturing. Adhesive Technologies has the ambition to leverage its technical expertise in material development and broad application knowledge to bring novel materials with unique properties that enable functional prototyping and additive manufacturing in areas not possible today.

Henkel is a leading global supplier of high performance light cure acrylic, silicone, epoxy, and polyurethane adhesives used in critical applications such as medical and electronic device as well as transportation vehicle assembly. The company plans to use this wide range of technology expertise to offer novel light cure resins for use in SLA/DLP printing. The first of these new materials will be commercialized in 2017.

Henkel is also a leading supplier of hotmelt adhesives globally, developing high performance materials used in applications that include filter and medical device assembly as well as the protection of electronic assemblies. These Henkel materials have already been used to 3D print functional applications such as furniture and elements for buildings. Henkel is focusing development



in this area to provide novel filament and powder materials for us in SLS and FDM printers.

"Thanks to our broad material portfolio and our large customer base across different industries, we have the access and ability to enable 3D printed solutions for all kinds of functional applications," explained Mike Olosky, Corporate Senior Vice President and Global Head of Innovation and New Business Development at Henkel Adhesive Technologies. "We believe strongly in the future of additive manufacturing and expect that its full potential will come by identifying the right customer application and focusing the right materials, with the right printing process and leveraging the right software."

Besides the development and formulation of suitable materials, Henkel demonstrates its 3D printing expertise through the partnership with the Dutch design and architecture start-up DUS Architects, who initiated the canal house project in Amsterdam in 2014. With the help of a giant 3D printer (installation space 2 x 2 x 3.5 meters) a house façade, including the interior walls, made up of 42 components is to be printed and constructed by 2017. Earlier this year, DUS designed the façade of a mobile conference building in Amsterdam. The individual elements were manufactured using Henkel hotmelt adhesives based on sustainable raw materials, and then injected with concrete. The bioplastic material provides the individual components with high consistency and stability, and can easily be recycled.

#### **About Henkel**

Henkel operates globally with a well-balanced and diversified portfolio. The company holds leading positions with its three business units in both industrial and consumer businesses thanks to strong brands, innovations and technologies. Henkel Adhesive Technologies is the global leader in the adhesives market – across all industry segments worldwide. In its Laundry & Home Care and Beauty Care businesses, Henkel holds leading positions in many markets and categories around the world. Founded in 1876, Henkel looks back on more than 140 years of success. In 2015, Henkel reported sales of 18.1 billion euros (20.1 billion US dollars), adjusted operating profit of 2.9 billion euros (3.2 billion US dollars). Its three top brands, Persil (detergent), Schwarzkopf (hair care) and Loctite (adhesive) generated more than 6 billion euros (around 6.6 billion US dollars) in combined sales.



Henkel employs around 50,000 people globally – a passionate and highly diverse team, united by a strong company culture, a common purpose to create sustainable value, and shared values. As a recognized leader in sustainability, Henkel holds top positions in many international indices and rankings. Henkel's preferred shares are listed in the German stock index DAX. For more information, please visit <a href="https://www.henkel.com">www.henkel.com</a>.

## Photo material is available at http://www.henkel.com/press

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## The following material is available:



High-performing Henkel materials enable even complex 3D printing applications



Mobile conference building in Amsterdam: The blue façade elements were designed by DUS Architects and manufactured with hotmelts from Henkel